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BEFORE THE

Federal Communications Commission

Washington, D.C. 20554

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FEB 19 1993

FCC - MAIL ROOM

In the Matter of

Amendment of the)
Commission's Rules to Define)
Effective Means for Interworking)
of Customer Premise Equipment and)
Public Enhanced 9-1-1 Systems)

RM - 8143

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FEDERAL COMMUNICATIONS COMMISSION
GENERAL COUNCIL

REPLY TO COMMENTS

FILED REGARDING THE PETITION

Adcomm Engineering Company hereby submits a reply to comments from those parties who offered them.

GENERAL REPLY

As a daily participant in the development of public safety communications systems, Adcomm became aware of a rapidly expanding issue that threatens to place industry and government into a difficult, reactionary position. As the point of regulation of one element of the problem, the Federal Communications Commission's Rules were chosen as a base for pursuit of a broader resolution to the problem of (E)9-1-1 compatibility with private telephone systems. Adcomm whole-heartedly agrees that industry consensus is an important goal of any effort to resolve the stated problem, foreseeing such activity as a result of the Petition, but is concerned that local governments may act precipitously.

It is Adcomm's view that the issue has three parts, and unless each is dealt with in its turn there can be no

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graceful solution to the problem. The change to FCC Rules proposed in the Petition deals only with the first item on that list, network architecture. The three parts are:

- (1) Network architecture - the means by which the telephone network routes emergency calls and carries caller information.
- (2) Database management - the location database associated with telephone terminals must be maintained in an accurate and timely manner.
- (3) Numbering - A dialable network address (phone number) is used to index location databases presently, but telephone company numbering plans have not anticipated the potential increase in demand for numbers the (E)9-1-1 situation may create.

Some commenters failed to separate the role of the FCC and its Rules from services and the broader problem of (E)9-1-1 caller location. Through Part 68, the Commission provides for basic compatibility between the various elements of the Public Switched Telephone Network (PSTN), with safety as a primary goal. The modifications to Part 68 suggested are simply intended to align interface approaches without proposing to control user implementations or local exchange carrier (LEC) services. The Rules apply to equipment capability and do not place operating requirements on the users themselves. So the issues raised by Adcomm in the Petition are necessarily limited.

Unless action is taken, industry and local governments will soon embark on a patchwork of approaches to the location problem that may unreasonably increase the cost of telephone systems and services.

SPECIFIC REPLIES

The 8-digit station automatic number identification (ANI) suggested in the petition caused quite a bit of comment. 8-digit ANI is today's standard for (E)9-1-1. Reference to Bellcore documents on the subject of (E)9-1-1 will show that the ANI of an emergency calling party is 7 digits plus a numbering plan digit (NPD), for a total of 8. The 8th digit is further used in a number of toll and operator services to carry special information like coin or hotel origin for calling parties. The North American Numbering Plan (NANP) calls for 7 or 10 digit terminal addresses (telephone numbers) as we all know, but network equipment extends the number for handling purposes by one or two more, depending on the carrier and circumstance. We believe that assignment of the NPD may be done to open a whole new range of numbers for use internal to (E)9-1-1 systems.

As for special requirements at installation, the handling of emergency services trunks is modeled on that used in Part 68 for the now little-used AIOD, another high-value service. Notification of the telephone company at installation is not optional - it is necessary cause the routing and location database to operate properly.

The dedicated MF trunk connection suggested is based on telephone industry standard signaling. While not common in some vendor's designs, it is well-proven and compatible with (E)9-1-1 systems in place. Provision of the interface on equipment would be the required part, while some users or LECs may choose different ways of handling trunking, concentration or signal conversion.

We are not familiar with numbering assignments that make routing "9-9-1-1" versus "9-1-1" ambiguous in North America,

a concern of one commenter.

Telephone industry practice is to use a minimum of two 9-1-1 emergency service trunks per served location, though traffic may not justify two. This is largely a precaution against single-point failure, and the industry may identify special dial overflow or other techniques to achieve high availability.

We paraphrase the comments received from the five responders and provide related replies below.

Associated Public Safety Communications Officers (APCO): Comments supported rulemaking activity to assure compatibility.

Bell Atlantic Telephone Companies: Stated that uniform standards are appropriate, but industry consensus is favored. Specific comments about 8-digit ANI and data standards (as not necessarily appropriate to Part 68) are addressed above.

BellSouth Telecommunications: Expressed limited opposition, favoring a suspension of rulemaking while industry consensus is developed. Their assessment of the three principal issues coincides with Adcomm's.

GTE Service Corporation: Rulemaking is justified to insure uniformity, but problem is somewhat larger in scope than the Petition. Let TIA lead an effort to create the basis for rulemaking. Other specific comments are addressed above.

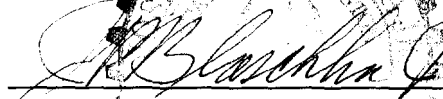
North American Telecommunications Association (NATA): An industry forum is the best way to establish the approach.

NATA finds Adcomm's approaches burdensome and potentially costly. We refer the commenter to the sections above addressing the scope and intent of the Petition, and note that a failure to establish a uniform technique will prove doubly costly.

CONCLUSION

Adcomm agrees that an industry consensus would provide the best basis for a rulemaking in this matter. Unfortunately, visible delay will precipitate regulatory action on the part of local authorities; local and state governments are already moving to deal with the problem. The urgency of the matter is the reason for the Petition. Further, we find nothing in the comments that causes us to reconsider the contents of the Petition.

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